

version of the changes made to the claims by the current amendment. The attachment is captioned "Version with Markings to Show Changes Made."

Now turning to the Office Action, and specifically to the rejection of independent claim 1, this claim generally recites a method of managing a concurrent use software license in a logically partitioned computer.

In rejecting the claim as being anticipated by Duvvoori, the Examiner apparently analogizes the "virtual computers" disclosed in Duvvoori to logical partitions, and thus argues that tracking usages of a licensed program across multiple virtual computers is analogous to tracking usages across multiple logical partitions.<sup>1</sup>

However, logical partitions and the "virtual computers" disclosed in Duvvoori are recognized in the art as being entirely different concepts from one another. As such, Applicants respectfully submit that Duvvoori does not anticipate claim 1.

In particular, as described in the application, logical partitioning is characterized by the effective partitioning of a single physical machine into multiple machines. In a logically-partitioned computer, each logical partition has a separate operating system, with lower level software used to provide partition management functionality and to enable each operating system to operate as if that operating system was the sole operating system resident in the machine. Moreover, each logical partition is allocated a different set of hardware resources in the machine, e.g., a subset of processors, input/output resources, and/or memory. From the perspective of the operating system, and of all applications running in that operating system, it is as if that operating system were resident on a non-partitioned computer.

The concept of a "virtual computer" as described in Duvvoori is used in the Windows NT environment (as well as in other operating systems) to allow legacy 16-bit applications to execute

---

<sup>1</sup>In other sections of the Office Action, the Examiner also appears to rely on the functionality distributed across multiple servers in Duvvoori as being analogous to the functionality recited in Applicants' claims (*see, e.g.*, the citations of col. 7, lines 25-40). However, it should be noted that all of Applicants' claims are directed to license management within a single logically partitioned computer. While Applicants' claimed functionality could be used in connection with a distributed system that includes a logically-partitioned computer, the distributed functionality described in Duvvoori is not applicable to Applicants' claims given that tracking licenses across distributed computers does not raise the same issues as are raised in logically-partitioned computers.

in a 32-bit environment. This is typically accomplished by providing a run-time environment that simulates, in a 32-bit operating system, a 16-bit environment. The run-time environment has an API that effectively converts the 16-bit instructions and operating system calls to those that operate in the 32-bit operating system.

Of note, however, is the fact that, in a Windows NT or similar environment, only one operating system is resident in the system. The run-time environments used for 16-bit applications are not analogous to operating systems themselves, as they lack most of the core functionality required for an operating system.

Furthermore, as noted above, logical partitions are typically characterized as being allocated subsets of hardware resources from a single machine. There is no analogy that can be drawn to this functionality in the environment disclosed in Duvvoori.

As Applicants have noted in the Application and the prior Amendment and Response, Applicants' invention addresses a problem associated with concurrent use license management that is unique to logically partitioned computers - that of tracking usages across multiple logical partitions when the partitions share the same hardware identifier (since they are resident on the same physical machine), and when the partitions are designed to hide from each logical partition the fact that other partitions are also resident on the same computer. Therefore, to further focus claim 1 on these concepts, Applicants have amended the claim to clarify that each logical partition includes an operating system resident therein, that the tracking step is performed by a partition manager accessible to each logical partition, and that a license manager resident in the first logical partition accesses the partition manager in response to the request to use the computer program in the first logical partition and selectively denies the request when the requested use would violate the concurrent use software license.<sup>2</sup>

Duvvoori, on the other hand, simply does not address the problems Applicants have noted are unique to logically-partitioned computers, or the particular solution that is recited in claim 1. As such, Applicants respectfully submit that claim 1 is novel and non-obvious over the prior art

---

<sup>2</sup>The Examiner will also note that claim 2 has been canceled, and claim 6 has been amended, for consistency with the amendments made to claim 1.

of record. Reconsideration and allowance of claim 1, as well as of claims 3-9 which depend therefrom, are therefore respectfully requested.

Next, with respect to independent claims 10, 18 and 19, each of these claims has likewise been amended to more clearly recite the nature of a logically-partitioned computer, wherein each logical partition includes an operating system resident therein, and where the license management functionality is implemented using a partition manager accessible to each logical partition in conjunction with a license manager resident in a logical partition.<sup>3</sup> Therefore, each of claims 10, 18 and 19 is patentable over Duvvoori for the same reasons as presented above for claim 1. Reconsideration and allowance of claims 10, 18 and 19, and of claims 12-17 and 20 which depend therefrom, are therefore respectfully requested.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

12/23/02  
Date

Scott Stinebruner by Kurt A. Sumner  
Scott A. Stinebruner  
Reg. No. 38,323  
WOOD, HERRON & EVANS, L.L.P.  
2700 Carew Tower  
441 Vine Street  
Cincinnati, Ohio 45202  
(513)241-2324

---

<sup>3</sup>Claim 11 was also canceled, and claim 12 was amended, for consistency with the amendments to claim 10.

U.S. S/N 09/314,324

December 23, 2002

**Version with Markings to Show Changes Made**

Claims 2 and 11 have been canceled without prejudice, and claims 1, 6, 10, 12 and 18-19 have been amended as outlined below. The currently pending claims, including the aforementioned amendments, are as follows:

1. (Once Amended) A method of managing a concurrent use software license in a logically partitioned computer of the type including a plurality of logical partitions, each including an operating system resident therein, the method comprising:

(a) tracking concurrent uses of a computer program across [a] the plurality of logical partitions in the logically partitioned computer using a partition manager accessible by the plurality of logical partitions; and

(b) with a license manager resident in a first logical partition among the plurality of logical partitions, accessing the partition manager in response to a request to use the computer program in the first logical partition and selectively denying [a] the request to use the computer program in [a] the first logical partition if permitting the requested use would violate a concurrent use software license associated with the computer program.

2. (Canceled).

3. The method of claim 2, wherein tracking concurrent uses of the computer program includes maintaining a global count of the number of concurrent uses of the computer program across the plurality of logical partitions.

4. The method of claim 3, further comprising receiving the global count from the partition manager in response to the access thereto, and wherein selectively denying the request includes denying the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

5. The method of claim 3, further comprising:

- (a) incrementing the global count whenever a request to use the computer program is granted; and
- (b) decrementing the global count whenever a use of the computer program is terminated.

6. (Once Amended) The method of claim 5, wherein each logical partition includes a local license manager [, and wherein accessing the partition manager in response to the request is performed by the local license manager in the first logical partition].

7. The method of claim 6, wherein each of incrementing and decrementing the global count includes passing a program identifier to the partition manager.

8. The method of claim 6, further comprising determining in the local license manager for the first logical partition whether permitting the requested use would violate the concurrent use software license.

9. The method of claim 1, further comprising tracking concurrent uses of a plurality of computer programs across the plurality of logical partitions.

10. (Once Amended) An apparatus, comprising:

- (a) a logically partitioned computer including a plurality of logical partitions; [and]
- (b) a plurality of operating systems, each resident in a different logical partition among the plurality of logical partitions; and
- (c) a first program resident in the computer, the first program configured to manage a concurrent use software license for a second program in the computer by tracking concurrent uses of the second program across the plurality of logical partitions, and selectively denying a request to use the second program in a first logical partition if

permitting the requested use would violate the concurrent use software license, wherein the first program includes:

(i) a partition manager accessible by the plurality of logical partitions and configured to track the concurrent uses of the second program across the plurality of logical partitions; and

(ii) a license manager resident in the first logical partition and configured to access the partition manager in response to the request to use the second program in the first logical partition.

11. (Canceled).

12. (Once Amended) The apparatus of claim [11] 10, wherein the partition manager is configured to track concurrent uses of the second program by maintaining a global count of the number of concurrent uses of the second program across the plurality of logical partitions.

13. The apparatus of claim 12, wherein the license manager is further configured to receive the global count from the partition manager in response to the access thereto, and to selectively deny the request when the global count is at least equal to a maximum number of concurrent uses permitted by the concurrent use software license.

14. The apparatus of claim 12, wherein the license manager is further configured to increment the global count whenever a request to use the second program is granted, and to decrement the global count whenever a use of the second program is terminated.

15. The apparatus of claim 14, wherein the license manager is resident in the first logical partition, and wherein each additional logical partition includes an associated local license manager.

16. The apparatus of claim 14, wherein the global count is associated with a program identifier for the second program, and wherein the license manager is configured to pass the program identifier to the partition manager when accessing the partition manager.

17. The apparatus of claim 11, wherein the partition manager is further configured to track concurrent uses of a plurality of programs across the plurality of logical partitions.

18. (Once Amended) An apparatus, comprising:

(a) a plurality of logical partitions;

(b) a plurality of operating systems, each resident in a different logical partition among the plurality of logical partitions;

(c) [(b)] a partition manager configured to track concurrent uses of a computer program across the plurality of logical partitions; and

(d) [(c)] a plurality of license managers, each license manager resident in an associated logical partition among the plurality of logical partitions, and each license manager configured to access the partition manager responsive to a request to use the computer program in the associated logical partition.

19. (Once Amended) A program product, comprising:

(a) a first program configured to manage a concurrent use software license for a second program in a logically-partitioned computer of the type including a plurality of logical partitions, with each logical partition including an operating system resident therein, the first program including a partition manager accessible by the plurality of logical partitions and configured to track [tracking] concurrent uses of the second program across [a] the plurality of logical partitions in the logically-partitioned computer, and a license manager, resident in a first logical partition among the plurality of logical partitions and configured to access the partition manager in response to a request to use the second computer program in the first logical partition and selectively deny the request [selectively denying a request to use the second program in a first logical partition among

the plurality of logical partitions] if permitting the requested use would violate the concurrent use software license; and

(b) a signal bearing medium bearing the first program.

20. The program product of claim 19, wherein the signal bearing medium includes at least one of a recordable medium and a transmission-type medium.